



NEUROMARKETING AND UNDERSTANDING ANTECEDENTS OF CONSUMER
SWITCHING INTENSIONS—A SYSTEMATIC REVIEW OF LITERATURE.

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Abstract

This article proposes to study theories of neuromarketing and consumer decision making to understand how neuromarketing can add insights to existing theories in consumer switching intensions. This systematic literature review will suggest how neuromarketing methods can be used to understand the consumer switching intensions and explore the known side of consumer behaviour. This paper help build platform for neurosciences that can facilitates better theory development and empirical testing by considering the biological and social context and the role of how these variables may influences on consumer while taking decision. This literature review also highlights need for new marketing tools and methods needed to understand switching behaviour pattern and causal variables for igniting switching intensions. Neuromarketing research may shed light on many unanswered questions regarding consumers switching intensions thus this study aims at identifying variables, degree, and direction for future research to understand deep aspects of switching intentions.

Purpose – Neuromarketing research may shed light on many unanswered questions regarding consumers switching intensions thus this study aims at identifying variables, degree, and direction for future research to understand deep aspects of switching intentions. We argue that neuromarketing provides constraints to facilitate better understanding of consumer switching intensions, provided new empirical test of standards and findings, theoretical claims, can provide explanation for observed explanation for observed heterogeneity within across

consumers and can provide a mechanism for considering the social and biological context and the roles of constructs like perceptions, biases, emotional factors, stimuli, reward, reputations, colours, lifestyle impacts on consumer switching decisions. The primary objective of this article is to appeal to a broad population and encourage them for further study in this critical area which is currently unaddressed.

Design/methodology/approach – The study refers the literature review conducted in this paper applies the guidelines set by (Webster and Watson,2002) and (Vom Brocke et al.,2009). Therefore, the literature search begun with a search word switching intentions using various Sites, Databases, Google Scholars, AiSel, ResearchGate, Journals of Neurosciences and Springer. The initial search yielded 250 articles of which only 46 could be regarded as consumer decision behaviour and switching intensions and related to neuromarketing. The study adopts a theoretical approach grounded in theoretical foundations of switching intensions and decision making along with practical illustrations from the industry.

Findings –Based on systematic literature review, concepts that are predictors of customer switching intensions are identified. The various major variables identified under the subcategory of variables of social and biological variable are listed under the framework of neuromarketing. These variables are the triggers for customer perceptions and thought process towards consumer decision making which ultimately leads to the consumer switching decisions. The social and biological variables are the independent variables which plays a critical role in impacting the decision making of the consumers. Switching intension is the dependent variable which is the ultimate result of the independent variables. This study identifies variables responsible for the switching decision. Our study will set basis to explore evidences of neuro marketing in consumer switching intensions in durable segments.

Practical implications – In this paper, literature review in the field of consumer decision-making and switching decisions are explored, and research in this domain was discussed for in-depth understanding of the process, theories and models used by various researcher to establish neuromarketing as trusted tool in understanding consumer behaviour. Still it is a “dark spot” for marketers to know the reasons and what exactly prompts purchasing decisions along with the reasons to switch.

Originality/value –This paper is an original contribution of authors and have high value in new field of neuromarketing which has limited literature available for marketing practise

Keywords Markets/Economies, Methodologies, Neuroscience, Neuromarketing, Switching intensions, Switching Decisions, Decision making

Paper Type -Review Paper.

1. INTRODUCTION

In today's disruptive market environment, world is no longer practicing the same old marketing tools to acquire an edge over the competitors as a only a decade ago. It has become inevitable to adopt and integrate other disciplines along with marketing to take a leap forward to understand consumers in a better way. Neuromarketing is a new discipline that combines behavioural psychology, economics, and consumer neuroscience. Neuromarketing as an emerging field bridges the study of consumer behaviour and connects it with neuroscience. It has not just attracted increasing attention, but also critical aspects of this evolving domain are now has increased interest for researcher, for specifically for marketer, to know how it can be effectively used to understand consumer intentions. It's a known fact consumer are complex, diverse, and dynamic in nature but neuromarketing can provide better insights about their purchase and switching intentions hidden deep inside their brain. Many researchers have tried to reveal hidden aspect of consumer brain using cognitive emotional processes and related then to underlying human conscience that leads to decision-making. Neuromarketing goes beyond and establishes connect between emotional and rational aspect in decision making with proofs of physical and psychological co dependence by using various techniques to record these responses when exposed to marketing stimuli. Neuromarketing has become both a useful tool and a source of theory development for switching intentions identifying better ways to explore human brain and impact of measurement and influence of marketing stimuli. Some researchers express high hopes that a neuromarketing techniques will provide a deeper understanding of marketing stimuli and its impact on consumer switching intentions.

This paper, we tried to understand how research in neuromarketing evolved and how it tried to solve complexities of switching intentions. This paper will also try to explore neuromarketing variable in social and biological context as used by various researchers to set stage for future research in the domain of neuromarketing methods to be integrated with research in consumer switching intentions.

We argue that neuromarketing provides constraints to facilitate better understanding of consumer switching intentions, provided new empirical test of standards and findings, theoretical claims, can provide explanation for observed explanation for observed heterogeneity within across consumers and can provide a mechanism for considering the social and biological context and the roles of constructs like perceptions, biases, emotional factors, stimuli, reward, reputations, colours, lifestyle impacts on consumer switching decisions. The primary objective of this article is to appeal to a broad population and encourage them for further study in this critical area which is currently unaddressed.

2. REVIEW OF THE LITERATURE

2.1 Search Process and Literature Overview

The literature review conducted in this paper applies the guidelines set by (Webster and Watson, 2002; Brocke et al., 2009). Therefore, the literature search begun with a search word switching intentions using various sites, databased, Google Scholars, AiSel, ResearchGate, Journals of neurosciences and Springer.

The initial search yielded 250 articles of which only 46 could be regarded as consumer decision behaviour and switching intentions and related to neuromarketing. Only these were considered for the review and research paper writing.

2.2 Background - Decisions Making Process & Consumer Switching Intension

Up until now, various major hypotheses and models have attempted to clarify the consumer's conduct. One of the most mainstream models is the Marshallian model. As per it, the choices to purchase something are the impact of reasonable computations. This hypothesis started in the works of Adam Smith, proposed the possibility that consumers are completely reasonable and, we may state completely mindful when taking choices with monetary character. (Ctoi and Teodorescu, 2004). (Tversky and Kahneman, 1974) accepted that at most occasions, the choices depend on those assessments identified with the probability of delivering questionable occasions of those abstract probabilities. It isn't inconsequential the job of these abstract probabilities basic our choice. Individuals tend to depend on heuristic standards.

(Herr et al., 1991) perceive the significance of informal (WOM) on decision conduct of consumer. They state that WOM impacts the perspectives, inclinations and accordingly influences buy expectation of the consumers. It implies that a positive progression of WOM about a brand in-duces consumer to purchase that brand (advanced by WOM) however he might be happy with his past image.

(Wangenheim and Bayon, 2004) decide the impact of WOM (informal) on switching conduct of the consumers in setting of a specialist co-op. Results give that it is the quality of WOM which decides the switching conduct.

(Tellis, 1988) proposes that dependability is a critical arbitrator of the impacts of advertisement introduction. Impact of promoting is by and large non-straight. Promoting appears to strengthen inclination for current brands instead of animate brand switching. Scaled down value brings about more acquisition of amount. Coupons shows and highlights essentially influence brand switching. It is seen that steadfastness is the most grounded determinant of procurement conduct, brand unwaveringness on brand decision and volume faithfulness on units purchased.

A few components impact dynamic. These variables, including past understanding (Juliussen, Karlsson, and Gärling, 2005), psychological inclinations (Stanovich and West, 2008), age and individual contrasts (Bruin, Parker, and Fischhoff, 2007), confidence in close to home significance (Acevedo and Krueger, 2004), acceleration of duty and impact what decisions individuals make.

(Shah and Oppenheimer, 2008) says that in dynamic, intellectual inclinations impact individuals by making them over depend or loan more assurance to anticipated perceptions and past information, while excusing data or perceptions that are seen as questionable, without taking a gander at the master plan. While this impact may prompt helpless choices here and there, the psychological inclinations empower people to settle on effective choices with help of heuristics.

(Juliussen, Karlsson, and Garling, 2005) finished up individuals settle on choices dependent on a silly heightening of duty, that is, people contribute bigger measures of time, cash, and exertion into a choice to which they feel submitted.

(De Bruin, Parker, and Fischhoff, 2007), (Finucane, Mertz, Slovic, and Schmidt, 2005) says that age, financial status (SES), and intellectual capacities impacts dynamic.

Existing hypotheses clarifies that consumer switch marks either because of the outward intentions (value, coupons) or inborn thought processes (want to attempt another brand) (Mazursky, LaBarbera and Aiello, 1987). Extraneous thought

processes to switch are progressively common among the accomplished consumers as contrast with the consumer with constrained buy understanding (Mazursky, LaBarbera, and Aiello, 1987)

In the event that the consumer isn't certain about their acquisition of a specific brands, the likelihood of friend impact affecting the choice whether to proceed with a similar brand or to switch would build (Felltham, 1998).

Here the inquiry emerges why consumer switch brands, what are switching expectations and how the consumer settles on decision for switching. A survey of a portion of the examinations recorded beneath brings a few realities that support switching goals and why consumer switch choices. There are factors, which eventually lead to mark switching expectations, a portion of these might be social variables, natural components, which are the fundamental, cause, and gets the significant effect switching choices.

In the wake of perusing different examination papers on the related subject of neuromarketing and consumer dynamic out of which some are not explicit to consumer switching choices.

(Maris Lima Cruz et al., 2016) this investigation discloses how to plan the cerebrum areas engaged with the choice procedure of consumers and how data preparing is executed inside mind.

(José Chavaglia Neto et al., 2011) this paper clarifies the mooring impact of cost on dynamic, i.e consumer will safeguard his decision at any expense and investigates buy reiteration design, which expresses that each time consumer buy the contrast it and his past buy.

Writing survey of (Alina Stankevich, 2017) centres around consumer purchasing conduct, explicitly on factors/minutes that impact clients' dynamic procedure.

(Arvind Sahay et al., 2010) builds up impact of companions, family, and brand connections on switching goals among youthful consumers between age gathering of 13-25Yrs while understanding shrouded parts of dynamic.

(Zeeshan Ahmed et al., 2015) investigated the connection between affecting components and switching expectations of consumers with respect to their cell phones. The different focal point of the examination study is to distinguish the variables, which de-propels the conduct of consumers from switching towards other cell phones, paper don't contemplate working of the mind in dynamic.

(David Mazursky et al., 1987) through his examination investigated how outward and inherent impact is answerable for switching choice. He distinguished significant explanation behind switching brands. Focal point of the examination was, when client switches marks and didn't investigate working of neural elements required for dynamic.

(Gyasi Nimako, 2012) broadly audits the writing on speculations of Consumer Switching Behaviour (CSB) and proposes an integrated model of CSB for clarifying the marvel with regards to portable media transmission industry in creating nations.

(David Njite et al., 2014) gives a meaning of the term "consumer-switching" and shows how consumer switching in the neighbourliness business can be better comprehended by being analyzed through the structure of the GST and can be investigated through a multi-disciplinary viewpoint.

(Sebastian, 2014) Author investigates that neuroeconomics and neuromarketing are two new rising fields which can offer new bearings in understanding This paper clarifies utilization of neuromarketing and dynamic procedure.

Table 1: Theories and Models.

Name of the Model	Short description	Authors, Year
Behavioural Model of Rational Choice	The model conceptualizes the dynamic procedure in three phases of exercises: insight action, plan movement, and decision action. Simon contends that dynamic is an intellectual procedure that can be isolated into basic, consecutive advances.	Simon H., 1960
Nicosia model	This model focuses on the correspondence procedure that happens between a brand and a consumer. It utilizes a progression of occasions through various stages that are recognized as fields.	Nicosia F.M., 1966
Theory of buyer behaviour	The hypothesis clarifies the purchaser conduct of people over a period. All the more explicitly – the brand decision conduct of the purchaser. The creators recognize the components of consumer choice procedure (a lot of thought processes; a few elective strategies, and choice go between by which the intentions are coordinated with the other options), watched the progressions that happen in them after some time because of their redundant nature and indicated how a mix of choice components influences search forms and the joining of data from the purchaser's business and social condition. The model gives three degrees of consumer dynamic which are: Broad critical thinking Limited critical thinking Constant reaction conduct.	Sheth J. & Howard J.A., 1969
An alternative conceptualization for consumer behaviour and product performance	The author clarifies consumer conduct by depicting the expression "evoked set" by including and arranging all the brands that might be in the consumer's "mindfulness set", inactive, and awkward set. They introduced a reasonable system for likely consumer conduct when confronted with a variety of brands.	Narayana C.L. & Markin R.J., 1975
PrOACT decision making model	This model provides a systematic approach for making decision. This model consists of 8 elements like problems, Objective, alternatives, consequences, trade-offs, uncertainty, risk tolerance, linked decisions.	John S. Hammond, Ralph L. Keeney, and Howard Raiffa.

Sheth, Newman & Gross model	According to this model, there are 5 consumption values which influences consumer choice behaviour. These values are functional, social, conditional, emotional, and epistemic. Any or all these 5 consumptions values may influence consumer decisions.	Sheth J.N., Newman B.I. & Gross B.L., 1991
The Marketing Spiral	It says that consumer behaviour is like a spiral that begins with an interaction as opposed to communication. This spiral increase and expanse as the consumer increase the further engagement.	ArmanoD., 2007
Push-Pull-Moorring Theory of consumer switching	This model presents unifying framework for understanding the complexity of the process of consumer switching	Bansal, Taylor, and James., 2005
Push-Pull-Moorring (PPM) Migration Model of Service Switching	This model is based on the process to understand the customer switching with reference to the customer relationship management	Roos., 1999
critical incidents method	This method uses critical incident method to understand consumer switching intensions and classified into 8 general categories like pricing, inconvenience, core service failures, failed service encounters, response to failed service, competition, ethical problems, and involuntary switching.	Keaveney.,1995
SPSM Model	This model says that switching intensions and switching behaviour are the ultimate dependent variables. Attitude towards switching intensions is suggested as independent variables by TPB. In marketing literature, service satisfaction is suggested as an independent variable. This in relevance to the service industry.	Bansal and Tayl.,1999
General System Theory of Consumer Switching (GSTCS)	To examine consumer switching behaviour, an alternate theoretical framework has been analysed and used which is called as GSTCS theory. It says that though various models have been proposed to examine this phenomenon, GSTCS model viewed consumer switching as a uni-linear behaviour or as a simple cause-effect type of relationship.	David Njite, Woo Gon Kim and Lisa Hyunjung Kim., 2014
Agency Theory of Consumer Switching	This theory is emphasizing on switching cost and introduces new categories of such costs. It also addresses the relationship between switching and unattended issues like information utilities, risk attitude, moral hazards and it addresses the cross-cultural, cross-context and cross industry empirical testing and verification of various controversies related to switching behaviour.	Simon Gyasi Nimako.,2012

Prospect Theory	This theory is a theory in category of cognitive psychology that describes the way people choose between probabilistic alternative that involve risk and where the probability of outcomes are known to people. This theory states that people take decisions based on the potential value of losses and gain rather than the final outcomes of the decisions and people evaluates these losses and gain using some heuristics.	Kahneman and Tversky, 1979
Product Importance Model-Based switching model	The model says that it keeps up that buyer think about various items to differ in significance. Therefore, for some random items, the significance differs over a given gathering of customers.	Morgan and Dev., 1994
The Switching Process model	According to this model, there are three main category of problem that influences consumer switching behaviour. These are core service failure, pricing problems and denied services. In addition to this, consumer evaluation of services recovery was also identified as a key factor which influences consumer switching decisions.	Colgate and Hedge., 2001
Consumer Decision Making Model	This model represents a refined integration of various influential factors like social, psychological, and marketing on consumer decision making and the integration with the stages of information processing. Various sociological and psychological factors on the basis of environmental stimuli and puts an impact on consumer. This model represent that these environmental factors are internalized by the consumers before the impact of decision-making process.	Howard and Sheth's model (1969)
Holtzman's model	This model consists of phases of decision analysis like namely, formulate, value, and appraise.	Holtzman.,1989

2.2 Understanding Neuromarketing

The word Neuromarketing, as the field is famously known, was first authored by (Smidts,2002). Its investigations consumers' sensorimotor, intellectual, and full of feeling reaction to advertising upgrades. Specialists use innovations, for example, utilitarian attractive reverberation imaging (fMRI) to quantify changes in movement in parts of the mind, electroencephalography (EEG) to gauge action in explicit local spectra of the cerebrum reaction, and sensors to gauge changes in one's physiological state, regarding heart and respiratory rate, galvanic skin reaction and so forth. Associations are quick to realize why consumers settle on the choices they do, and what some portion of the mind is instructing them to do it.

There are different procedures which can be utilized to comprehend the consumer dynamic procedure. A portion of the significant strategies which has been grouped and utilized has been referenced underneath. These strategies have significantly utilized in consumer dynamic procedure.

Table 2 Neuromarketing Techniques and Applications.

	Central Nervous Systems			Peripheral Nervous Systems	
	fMRI	EEG	Eye Tracking	Biometrics	Facial coding
Functions	It measures activity in brains by detecting the changes associated with blood flows.	It measures waves in brain. It provided evidence in how brain works.	It works on sensor technology to identify the person eye movements. It detects presence, attention, focus, movements of eyes of person.	This device measures skin response, heart rate, and respiration of human.	This device identifies facial expression of person
Consumers	Emotional responses, Engagement Level, Recall.	Engagement Level, Recalls.	Attention. Factors which confuse, Speed of recognition	Engagement Level and consumer responsiveness.	Emotional response, happiness, surprise, fear, anger.
Applications	Set or Introduce pricing of products, Improve branding and advertising,	Improve ads and branding	Improve website design, ads, packaging	Improve websites, contents,	Ad effectiveness,
Pros and Cons	Very expensive and invasive method, less detailed than EEG, can be performed only in lab	Very expensive than other methods, Poor spatial resolution, detect brain activity in few seconds.	Good in eye tracking, does not measure emotions.	Very accurate in measuring physical responses to stimuli, Non reliable methods.	Inexpensive and portable, Less intrusive but less precise as well.

3. Research Gap and Variable Identification

On reviewing various literature on consumer decision making and switching decisions, we have identified various gaps in knowledge where future research would be helpful in understating the particular needs of the identified variable in making switching decisions. There is still limited research to understand the consumer switching intensions in neuromarketing. Most of the available researches are on consumer decision making and ignore neural factors involvement in decision making. Future research should take into consideration how consumer switching intensions has been influenced by the cognitive psychology, psychological factors, external & internal reflexes under social and biological category of variables. These are the most appropriate factors which influences and responsible for the consumer taking switching decisions. With the help of neuromarketing, these factors can be studied in more detailed and precise manner to identify the switching decisions in consumer segment.

Identified variables which plays a crucial role in switching intensions are mentioned in Table 3.

Table 3 Variables:

Group	Variables	Factors	Applications
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Bio Neurosciences	Cognitive psychology	Attention	The human brain may simultaneously received auditory, visuals, olfactory, taste and tactile information. The brain is able to consciously handle only a small portion of this information and this is accomplished through the attention process. The attention is also related to colors like Bright colors.
		Perception	Perception involves both the physical senses (sight, smell, hearing, taste, touch) and also the cognitive process involves in interpreting those senses.
		Language	When people process decisions in a less familiar language, it seems to result in more rational and less emotional outcomes.
		Memory	Memory makes connection between different regions of the brains and consumer's reaction when visual, verbal and other temporary buffers are involved.
		Colours	Colours crates the most powerful psychological effect and it has a strong relationship emotion and behaviours. Colours also addresses one of our basic neurological needs for stimulations.
		Biases	A Cognitive bias is a systematic error in thinking that affects the decisions and judgement that people makes. Some of these biases are also related to memory
	Psychological	Subconscious Mind	Play a major role in decision makings. Conducted by Carnegie Mellon University, the study found that people made better decisions about buying new cars after they had been distracted by an unrelated task.
		Emotional Factors	In consumer decision making, emotions play an important role and rest all other process are rational. Emotions are created

			when the brain interprets what's going on around us through our memories, thoughts and belief. This factor triggers how we feel and behave. All our decisions are influenced by this process in some or other way.
		Stimuli	This factor plays a major role in consumer switching decisions on the spot. Like colors, smell, vision. Both Internal and external stimuli play a major role in decision making.
	External & Internal Reflexes	Body Language, Empathic Design, Facial Coding, EEG, FMRI, MEG	These are the factors which influences the decisions based on the body signals and brain signals in switching decisions on the basis of marketing stimuli.

In decision making, cognitive biases influence people by causing them to over believe and put more believes to expected observations and previous knowledge, while unworthy information or observations that perceived as uncertain without looking at actual and bigger picture. While this impact may lead to poor decision most of the time, the cognitive biases enable consumers to make efficient decisions with assistance of heuristics (Shah & Oppenheimer, 2008).

Study of the above variables from various papers has been identified and mentioned in Table 4.

Table 4.

Variable Group	Study	Article Heading	Short description
Bio-Neuroscience	Hanna Willman-Iivarinen	The future of consumer decision making	This article says that cognitive psychological factors plays a major role in consumer making decisions. There are other factors, but this is the most important and critical factors influencing the decision making.
Bio-Neuroscience & Socioeconomic	Cindy Dietrich	Decision Making: Factors that Influence Decision Making, Heuristics Used, and Decision Outcomes	This article argues about various variable Responsible for decision making.
Bio-Neuroscience	Sujesh F. SUJAN, Arto KIVINIEMI, Steve W. JONES, Jacqueline M. WHEATHCROFT, Eilif HJELSETH	Common biases in client involved decision-making in the AEC industry	This article identifies the existence of bias in decision making relating to the client who in construction industry is acknowledge in existing literature in this domain however lacks details in the application of theories associated with bias.

Bio-Neuroscience	Carolyn Yoon et al. 2012	Decision neuroscience and consumer decision making	This article says that the decision making can be better understood with the help of social and biological variables and this can be used in more better way to identify the gaps and the various decision models.
Bio-Neuroscience	Yakup Durmaz 2014	The Impact of Psychological Factors on Consumer Buying Behaviour and an Empirical Application in Turkey	In this article, the impact of psychological factors on consumer purchasing conduct is explored. The impact of psychological factors on purchasing intensions of consumer, who becomes considerably more significant step by step, is attempted to be estimated
Socioeconomical	Hossein Mirzaei et.al	The impact of social factors affecting consumer behaviour on selecting characteristics of purchased cars	This article examined the impact of social factors on consumer behaviour in selecting traits of the purchased cars in Tabriz (Iran)

4. Discussions and Conclusion

In this paper, literature review in the field of consumer decision-making and switching decisions were explored, and research in this domain was discussed for in-depth understanding of the process, theories and models used by various researcher to establish neuromarketing as trusted tool in understanding consumer behaviour. Still it is a “dark spot” for marketers to know the reasons and what exactly prompts purchasing decisions along with the reasons to switch. There is no one right answer, but it is possible to understand the complete process and put some light on it. The various trends, theories, models were investigated and presented in the field of consumer decision making and switching intensions to understand and identify important variables to study. There is a very strong relationship between consumer decision making and consumer switching intensions, and both are interlinked.

Based on systematic literature review, concepts that are predictors of customer switching intensions are identified. The various major variables identified under the subcategory of variables of social and biological variable are listed under the framework of neuromarketing. These variables are the triggers for customer perceptions and thought process towards consumer decision making which ultimately leads to the consumer switching decisions. The social and biological variables are the independent variables which plays a critical role in impacting the decision making of the consumers. Switching intension is the dependent variable which is the ultimate result of the independent variables. This study identifies variables responsible for the switching decision. Our study will set basis to explore evidences of neuro marketing in consumer switching intensions in durable segments.

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